WHAT IS CLAIMED IS:

1. An optical-quality polarized part comprising:

an optical construct comprising a high impact polyurethane-based optical material; and

a polarizer integrally bonded to the optical construct.

2. An optical-quality polarized part according to claim 1 wherein the polarizer comprises a polyethylene terephthalate film.

3. An optical-quality polarized part according to claim 1 wherein the polarizer comprises a wafer.

4. An optical-quality polarized part according to claim 1 wherein the polarizer comprises at least one layer supporting a polyvinyl alcohol film.

5. An optical-quality polarized part according to claim 1 wherein the optical construct is a lens substrate.

6. An optical-quality polarized part according to claim 1 wherein the high impact polyurethane-based optical material comprises a polyurethane prepolymer reacted with a diamine curing agent.

7. An optical-quality polarized part according to claim 6 wherein the high impact polyurethane-based optical material further comprises a dye or colorant, a stabilizer, or a stiffener.

8. An optical-quality polarized part according to claim 6 wherein the prepolymer comprises up to about 12 molar percent trimethylol propane.

9. An optical-quality polarized part according to claim 6 wherein prepolymer is reacted with the diamine curing agent in an equivalent ratio of about 0.9 to 1.1 NH_2/1.0 NCO.

10. An optical-quality polarized part according to claim 1 wherein the high impact polyurethane-based optical material comprises the reaction product of (a) a polyurethane prepolymer prepared by reaction of methylenebis(cyclohexyl isocyanate) with an OH-containing intermediate having a weight average molecular weight between about 500 and about 1,200 selected from the group consisting of polyester glycols, polyether glycols, and mixtures thereof in an equivalent ratio of 2.5 to 4.0 NCO/1.0 OH and (b) an aromatic diamine curing agent in an equivalent ratio of about 0.9 to 1.1 NH_2/1.0 NCO.

11. An optical-quality polarized part according to claim 1, further comprising a hard coating, wherein the hard coating is integrally bonded to the optical construct.

12. An optical-quality polarized part according to claim 1, further comprising a hard coating, wherein the hard coating is integrally bonded to the polarizer.

13. A method of manufacturing an optical-quality polarized part comprising:

forming a high impact polyurethane-based optical construct utilizing a sidefill gasket; and

bonding a polarizer to the construct.

14. A method of manufacturing an optical-quality polarized part according to claim 13 wherein the optical construct is formed by placing liquid-phase polymeric material about one side of the polarizer.

15. A method of manufacturing an optical-quality polarized part according to claim 13 wherein the optical construct is formed by placing liquid-phase polymeric material about each side of the polarizer.

16. A method of manufacturing an optical-quality polarized part according to claim 15 wherein the liquid-phase polymeric material is placed simultaneously about each side of the polarizer.

17. A method of manufacturing an optical-quality polarized part according to claim 13 wherein the polarizer is bonded to the optical construct after the optical construct has been formed.

18. A method of manufacturing an optical-quality polarized part according to claim 13 wherein the polarizer comprises a polyethylene terephthalate film.

19. A method of manufacturing an optical-quality polarized part according to claim 13 wherein the sidefill gasket has sidefill ports for admitting liquid-phase polymeric material via the sidefill ports onto at least one side of the polarizer.

20. A method of manufacturing an optical-quality polarized part according to claim 13 wherein the optical construct is a lens formed with the polarizer at or near a front surface of the lens.

21. A method of manufacturing an optical-quality polarized part according to claim 13 further comprising the step of treating the polarizer for integral bonding to the optical construct.

22. A method of manufacturing an optical-quality polarized part according to claim 19 further comprising the step of treating the polarizer for integral bonding to the optical construct.

23. A method of manufacturing a polarized lens comprising:

positioning a polarizer within a mold cavity;

admitting liquid-phase high impact polyurethane-based optical material into the mold cavity; and

forming a solid lens with the polarizer at or near a front surface of the lens, wherein the polarizer comprises a polyethylene terephthalate film.

24. A method of manufacturing a polarized lens according to claim 23 wherein the polarizer is positioned within the mold cavity via a sidefill gasket.

25. A method of manufacturing a polarized lens according to claim 23 further comprising treating the surface of the polarizer for applying a hard coating thereon and applying the hard coating to the film.

26. A method of manufacturing a polarized lens according to claim 23 further comprising treating the surface of the polarizer for integral bonding to the lens.

27. A method of manufacturing a polarized lens comprising:

positioning a polarizer within a mold cavity;

admitting liquid-phase high impact polyurethane-based optical material into the mold cavity; and

forming a solid lens with the polarizer at or near a front surface of the lens, wherein the polarizer comprises a wafer.

28. A method of manufacturing a polarized lens according to claim 27 wherein the polarizer is positioned within the mold cavity via a sidefill gasket.

29. A method of manufacturing a polarized lens according to claim 27 further comprising treating the surface of the polarizer for applying a hard coating thereon and applying the hard coating to the film.

30. A method of manufacturing a polarized lens according to claim 27 further comprising treating the surface of the polarizer for integral bonding to the lens.